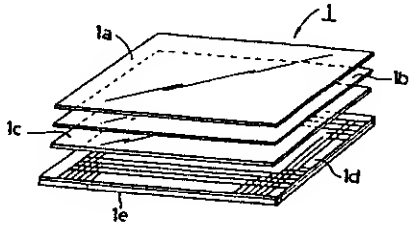
(54) PRESSURE TYPE FINGERPRINT INPUT DEVICE
(11) 63-204374 (A) (43) 24.8.1988 (19) JP
(21) Appl. No. 62-35489 (22) 20.2.1987
(71) ENITSUKUSU K.K. (72) TERUHIKO TAMORI
(51) Int. Cl⁴. G06F15/64,G06F3/03

PURPOSE: To provide a simple and thin and low cost device and to attain a low consuming power by laminating a pressure sensitive sheet in which a resistance value is changed according to the strength of the pressure according to a fingerprint pattern and a matrix electrode plate to constitute a fingerprint input plate.

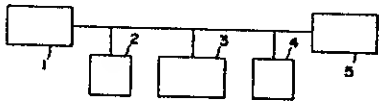
CONSTITUTION: The fingerprint input plate 1 is formed by laminating a protecting sheet 1a composed of polyethylene resin or the like, a conductive sheet 1b such as a copper foil constituting one electrode, the pressure sensitive sheet 1c in which the resistance value is changed according to the strength of an applied pressure and the matrix electrode plate 1d in which many semiconductor switches are formed in the grid form of an X axis direction and a Y axis direction on a glass plate 1e. When the tips of the finger is slightly pressed to the fingerprint plate 1, the pressure sensitive sheet 1c is pressed according to the pattern of the fingerprint, a pressing point is reduced in the resistance value, this resistance value is electrically taken out, thereby, the fingerprint pattern can be detected. Thereby, the consuming power is reduced, a constitution is simplified, thinned and formed at low cost since a CCD or an optical system is not used.



(54) HALF TONE PICTURE FORMING METHOD
(11) 63-204375 (A) (43) 24.8.1988 (19) JP
(21) Appl. No. 62-37280 (22) 19.2.1987
(71) FUJI XEROX CO LTD (72) YUZURU SUZUKI
(51) Int. Cl⁴. G06F15/68,H04N1/40

PURPOSE: To form a half tone picture without a deterioration in gradation reproducibility even by using a small matrix by correcting the variable density value of a picture element at a current scanning position according to the weighted averaged value of an error between the variable density value of an input and the variable density value of an output.

CONSTITUTION: The variable density value of data from a picture input device 1 or a picture memory 2 is converted to the area of the picture element by a picture processor 3. The error between the variable density value of the input and the variable density value of the output is operated for every picture element of an input picture and this error is stored in an error buffer disposed in the picture buffer processor 3. The error of the three picture elements in the vicinity of the two dimension of a scanning picture element is multiplied by a weight coefficient and summed up and it is defined to be the quantity of ER of the error to be corrected by the scanning picture. Then, the quantity ER of the error is subtracted from the variable density value of the current scanning picture element to obtain the final variable density value after the correction, this final variable density value is compared with a preset threshold matrix to obtain an output pattern. Thereby, the half tone picture in which the error as the average is corrected can be obtained.



3: picture processor. 4: controller. 5: picture output device

(54) CONTOUR TRACING METHOD
(11) 63-204376 (A) (43) 24.8.1988 (19) JP
(21) Appl. No. 62-35511 (22) 20.2.1987
(71) HITACHI LTD (72) TAKAFUMI MIYATAKE(1)
(51) Int. Cl⁴. G06F15/70

PURPOSE: To trace a contour at high speed by referring to the picture change point of a current line and the picture change point of a line previous by one to extract a basic form, integrating the extracted basic form and transforming to a contour coordinate string.

CONSTITUTION: The coordinate of the picture change point is inputted to a current line buffer 4 from a picture change point file 1 for every one line and the picture change point stored in the current line buffer 4 is moved to a previous line buffer 5. The basic form constituting a part of a contour line is extracted based on the scale comparison of the coordinate by a basic form extracting part 6 and stored in a basic form link table 7. The linking by a pointer is executed between the basic form and the basic form extracted before one line. This processing is completed on all lines, and then, a contour coordinate transforming part 8 integrates the basic form of the table 7 by tracing the pointer, forms the contour coordinate string and outputs to a contour coordinate file 9. Thereby at the time of transforming to th